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**RBW6510G04631-6F-5**

**Job Sheet 199036**



Part No: RBW6510G04631-6F-5

Job Qty: 2 pcs *6 pcs gmk*

Part Name: Spacer



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 8/9/19

Job Tracking No:

Created By: Marie Lajeunesse

Due Date: 10/21/19

Type: SOLD

Description:

Note: DWG RBW6510G04631-6F Rev A IPP Rev. A 19.08.08 New issue DP Verify DD

Ship Via:

### Bill of Materials

### Job Routing

| Op<br>No | Operation    | Qty   | Start Date | Due<br>Date | Standard     |            | Workcenter/Supplier   |           | Sign-off          |
|----------|--------------|-------|------------|-------------|--------------|------------|-----------------------|-----------|-------------------|
|          |              |       |            |             | Setup<br>Hrs | Run<br>Hrs | Workcenter / Supplier | Lead Time |                   |
| 100      | SL-2500Y - 1 | 2 pcs |            | 10/21/19    | 1.00         | 2.00       | SL-2500Y - 1          |           | <i>SL 19-9-21</i> |
| 110      | QC 2         | 2 pcs |            | 10/21/19    | 0.00         | 0.00       | QC 2 - 1              |           |                   |
|          |              |       |            |             |              |            | QC 2 - 12             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 14             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 17             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 19             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 2              |           |                   |
|          |              |       |            |             |              |            | QC 2 - 20             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 22             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 23             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 25             |           | <i>SL</i>         |
|          |              |       |            |             |              |            | QC 2 - 32             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 33             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 35             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 39             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 4              |           |                   |
|          |              |       |            |             |              |            | QC 2 - 40             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 44             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 45             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 48             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 49             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 50             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 51             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 52             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 57             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 62             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 63             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 8              |           |                   |
|          |              |       |            |             |              |            | QC 2 - 66             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 64             |           |                   |
|          |              |       |            |             |              |            | QC 2 - 65             |           |                   |

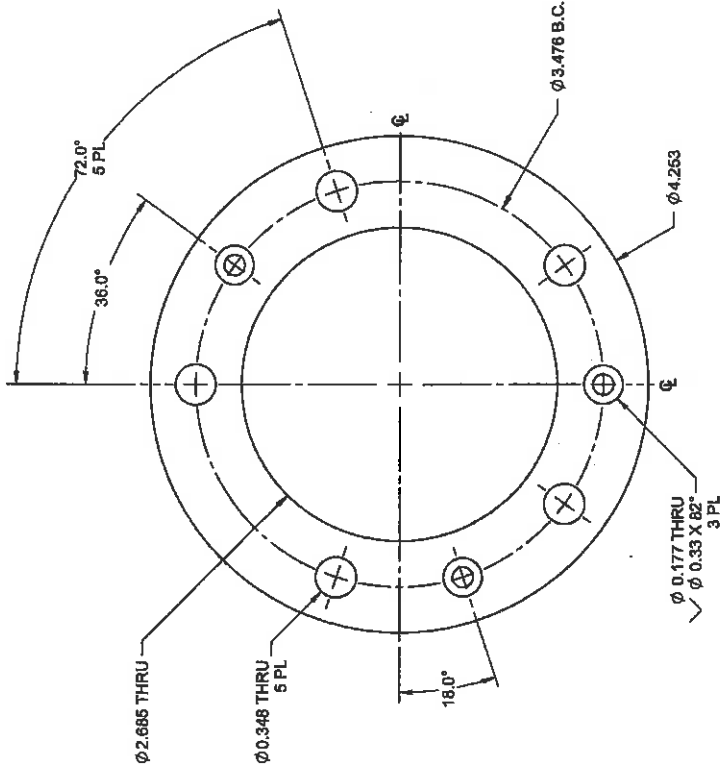
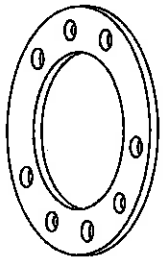
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|     |                             |       |          |           |                        |              |
|-----|-----------------------------|-------|----------|-----------|------------------------|--------------|
| 120 | QC 8                        | 2 pcs | 10/21/19 | 0.00 0.00 | QC 2 - 5               |              |
|     |                             |       |          |           | QC 2 - 71              |              |
|     |                             |       |          |           | QC 2 - 73              |              |
|     |                             |       |          |           | QC 2 - 69              |              |
|     |                             |       |          |           | QC 8 - 12              |              |
|     |                             |       |          |           | QC 8 - 14              |              |
|     |                             |       |          |           | QC 8 - 17              |              |
|     |                             |       |          |           | QC 8 - 20              |              |
|     |                             |       |          |           | QC 8 - 25              |              |
|     |                             |       |          |           | QC 8 - 3               |              |
|     |                             |       |          |           | QC 8 - 32              |              |
|     |                             |       |          |           | QC 8 - 33              |              |
|     |                             |       |          |           | QC 8 - 35              |              |
|     |                             |       |          |           | QC 8 - 39              |              |
|     |                             |       |          |           | QC 8 - 4               |              |
|     |                             |       |          |           | QC 8 - 44              |              |
|     |                             |       |          |           | QC 8 - 45              |              |
|     |                             |       |          |           | QC 8 - 49              |              |
|     |                             |       |          |           | QC 8 - 58              |              |
|     |                             |       |          |           | QC 8 - 8               | B.F 19-09-21 |
|     |                             |       |          |           | QC 8 - 9               |              |
|     |                             |       |          |           | QC 8 - 68              |              |
|     |                             |       |          |           | QC 8 - 67              |              |
|     |                             |       |          |           | QC 8 - 1 (A)           |              |
|     |                             |       |          |           | QC 8 - 47              |              |
|     |                             |       |          |           | QC 8 - 40              |              |
|     |                             |       |          |           | QC 8 - 52              |              |
|     |                             |       |          |           | QC 8 - 23              |              |
|     |                             |       |          |           | QC 8 - 57              |              |
| 130 | Packaging 3-1 - Stock - B4B | 2 pcs | 10/21/19 | 0.00 0.00 | Packaging 3 - 1 - B4B  |              |
|     |                             |       |          |           | Packaging 3 - 2 - B4B  |              |
|     |                             |       |          |           | Packaging 3 - 3 - B4B  |              |
|     |                             |       |          |           | Packaging 3 - 4 - B4B  |              |
|     |                             |       |          |           | Packaging 3 - 5 - B4B  |              |
|     |                             |       |          |           | Packaging 3 - 6 - B4B  |              |
|     |                             |       |          |           | Packaging 3 - 7 - B4B  |              |
|     |                             |       |          |           | Packaging 3 - 8 - B4B  |              |
|     |                             |       |          |           | Packaging 3 - 9 - B4B  |              |
|     |                             |       |          |           | Packaging 3 - 10 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 11 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 12 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 13 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 14 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 15 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 16 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 17 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 18 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 19 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 20 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 21 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 22 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 23 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 24 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 25 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 26 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 27 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 28 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 29 - B4B |              |
|     |                             |       |          |           | Packaging 3 - 30 - B4B |              |

|                                                                                                                                                                                                                                                                                                                  |                       |                                     |                  |                        |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------|------------------|------------------------|-------------|
|                                                                                                                                                                                                                                                                                                                  |                       |                                     |                  | Packaging 3 - 31 - B4B |             |
|                                                                                                                                                                                                                                                                                                                  |                       |                                     |                  | Packaging 3 - 32 - B4B |             |
|                                                                                                                                                                                                                                                                                                                  |                       |                                     |                  | Packaging 3 - 33 - B4B |             |
|                                                                                                                                                                                                                                                                                                                  |                       |                                     |                  | Packaging 3 - 34 - B4B |             |
|                                                                                                                                                                                                                                                                                                                  |                       |                                     |                  | Packaging 3 - 35 - B4B |             |
|                                                                                                                                                                                                                                                                                                                  |                       |                                     |                  | Packaging 3 - 36 - B4B |             |
| 140 QC 21 - SA                                                                                                                                                                                                                                                                                                   | 2 pcs                 | 10/21/19                            | 0.00 0.00        | QC 21 - SA - 21        | SEP 23 2019 |
|                                                                                                                                                                                                                                                                                                                  |                       |                                     |                  | QC 21 - SA - 70        | DAS 70      |
|                                                                                                                                                                                                                                                                                                                  |                       |                                     |                  | QC 21 - SA - 53        | 9-89        |
| Part Op 100 - 1-Machine as per folio FC <u>993</u> FOLIO REV: <u>AA</u> DWG REV: <u>A</u> 2-Deburr<br>Descriptions: 110 - QC2- Inspect parts off machine FAI/FAIB<br>120 - QC8- Inspect parts - second check<br>130 - Identify as per dwg & Stock Location:<br>140 - QC21- Final Inspection - Work Order Release |                       |                                     |                  |                        |             |
| <b>Job BOM</b>                                                                                                                                                                                                                                                                                                   |                       |                                     |                  |                        |             |
| <b>Part / Item Component Name</b>                                                                                                                                                                                                                                                                                |                       | <b>Quantity</b>                     | <b>Operation</b> | <b>Container</b>       |             |
| 8538K71 Wear-Resistant Off-White Nylon Rod, 4-1/2" Diameter, 1 Foot Length                                                                                                                                                                                                                                       |                       | .0332 ft (0.0105 ea)<br><u>.026</u> | 100-SL-2500Y - 1 | <u>S206426</u> .291    |             |
| <b>Job Allocations</b>                                                                                                                                                                                                                                                                                           |                       |                                     |                  |                        |             |
| <b>Operation</b>                                                                                                                                                                                                                                                                                                 | <b>Component Part</b> | <b>Required</b>                     | <b>Inventory</b> | <b>Allocated</b>       |             |
| 100-SL-2500Y - 1                                                                                                                                                                                                                                                                                                 | 8538K71               | 0                                   | 0                | 0                      |             |
| <b>Part Specifications</b>                                                                                                                                                                                                                                                                                       |                       |                                     |                  |                        |             |
| Specifications could not be found.                                                                                                                                                                                                                                                                               |                       |                                     |                  |                        |             |

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8 7 6 5 4 3 2 1



**RBW6510G04631-6F-5 SPACER**

- NOTES:
- 1) MATERIAL: NYLON 6
  - 2) HEAT TREAT: N/A
  - 3) FINISH: N/A
  - 4) TOLERANCES: X.X =  $\pm 0.1$  /  $\pm 1^\circ$   
X.XX =  $\pm 0.01$  /  $\pm 0.5^\circ$   
X.XXX =  $\pm 0.005$  /  $\pm 0.1^\circ$   
X.XXXX =  $\pm 0.0005$  /  $\pm 0.05^\circ$   
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES =  $\pm 0.005$
  - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 6) REMOVE ALL SHARP EDGES AND BURRS
  - 7) IDENTIFICATION: N/A

SHOP COPY  
RETURN TO  
ENGINEER  
UNCONTROLLED  
SUBJECT TO AMENDMENTS  
WITHOUT NOTICE  
WORK ORDER  
NO. ~~199~~ 199036 MWS  
19-08-01

|                                                                                                                                                                                                                                         |     |                  |                   |      |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------|-------------------|------|------------|
| DESIGN                                                                                                                                                                                                                                  | KPT | RBW6510G04631-6F | REACTION ASSEMBLY | DATE | 2019-07-09 |
| DRAWN                                                                                                                                                                                                                                   | KPT |                  |                   |      |            |
| CHECKED                                                                                                                                                                                                                                 | VM  |                  |                   |      |            |
| MFG. APPR.                                                                                                                                                                                                                              | PK  |                  |                   |      |            |
| APPROVED                                                                                                                                                                                                                                | WJ  |                  |                   |      |            |
| DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                       |     |                  |                   |      |            |
| REV. A                                                                                                                                                                                                                                  |     |                  |                   |      |            |
| SHEET 7 OF 10                                                                                                                                                                                                                           |     |                  |                   |      |            |
| SCALE: NTS                                                                                                                                                                                                                              |     |                  |                   |      |            |
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Entered: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only

NCR No. \_\_\_\_\_

| DISPOSITION                                    |                                                                                                         | DEPARTMENT/PROCESS                                                                                             |                                                                                                                 |                                                                                                                                      |                                                                                                                                                     |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Job: _____                                     | Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | Skid-tube <input type="checkbox"/><br>Machining <input type="checkbox"/><br>Large Fab <input type="checkbox"/> | Cross tube <input type="checkbox"/><br>Small Fab <input type="checkbox"/><br>Finishing <input type="checkbox"/> | Eng. (Non-AW) <input type="checkbox"/><br>Prod. Eng. Coord. <input type="checkbox"/><br>Rec/Store/Packaging <input type="checkbox"/> | Engineering <input type="checkbox"/><br>Water Jet <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Quality <input type="checkbox"/> |
| Date: _____                                    | Sequence #: _____                                                                                       | QTY Affected: _____                                                                                            |                                                                                                                 | MRB (QS1042) _____                                                                                                                   |                                                                                                                                                     |
| Description Work Order Deviation               |                                                                                                         | Disposition                                                                                                    |                                                                                                                 |                                                                                                                                      |                                                                                                                                                     |
|                                                |                                                                                                         | Completed By _____                                                                                             |                                                                                                                 |                                                                                                                                      |                                                                                                                                                     |
|                                                |                                                                                                         | Lead hand / Supervisor _____                                                                                   |                                                                                                                 |                                                                                                                                      |                                                                                                                                                     |
|                                                |                                                                                                         | QC / QA Coordinator _____                                                                                      |                                                                                                                 |                                                                                                                                      |                                                                                                                                                     |
| <b>Root Cause</b>                              |                                                                                                         | <b>FAULT CATEGORY</b>                                                                                          |                                                                                                                 |                                                                                                                                      |                                                                                                                                                     |
| Operator <input type="checkbox"/>              | Pressure/Forced <input type="checkbox"/>                                                                | Contamination <input type="checkbox"/>                                                                         | Power Loss/Surge <input type="checkbox"/>                                                                       | Positioned Wrong <input type="checkbox"/>                                                                                            |                                                                                                                                                     |
| Manufacturing Process <input type="checkbox"/> | Bending <input type="checkbox"/>                                                                        | Misaligned/off center <input type="checkbox"/>                                                                 | Folio/Program <input type="checkbox"/>                                                                          | Outside Tolerance <input type="checkbox"/>                                                                                           |                                                                                                                                                     |
| Equip/Tooling <input type="checkbox"/>         | Crushing <input type="checkbox"/>                                                                       | BOM/Route <input type="checkbox"/>                                                                             | Grain Direction <input type="checkbox"/>                                                                        | Drawing <input type="checkbox"/>                                                                                                     |                                                                                                                                                     |
| Handling/Preservation <input type="checkbox"/> | Cracks <input type="checkbox"/>                                                                         | Broken/Damage/Defect <input type="checkbox"/>                                                                  | Weld <input type="checkbox"/>                                                                                   | Finish <input type="checkbox"/>                                                                                                      |                                                                                                                                                     |
| Material <input type="checkbox"/>              | Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/>                                                   | Incomplete/Unclear Instructions <input type="checkbox"/>                                                       | Wrong Stock Pulled <input type="checkbox"/>                                                                     | Part Lost/Missing <input type="checkbox"/>                                                                                           |                                                                                                                                                     |
| Product Improvement <input type="checkbox"/>   | Marks/Chatter <input type="checkbox"/>                                                                  | Drill Holes <input type="checkbox"/>                                                                           | Out of Sequence <input type="checkbox"/>                                                                        | Misread <input type="checkbox"/>                                                                                                     |                                                                                                                                                     |
| Process Improvement <input type="checkbox"/>   | Mislabeled <input type="checkbox"/>                                                                     | Fit/Function <input type="checkbox"/>                                                                          | Off-set/Set-up <input type="checkbox"/>                                                                         |                                                                                                                                      |                                                                                                                                                     |
| Human Factors <input type="checkbox"/>         | Other/Details: _____                                                                                    |                                                                                                                |                                                                                                                 |                                                                                                                                      |                                                                                                                                                     |

# INSPECTION SHEET

| Rev | Date     | Change    | Revised by | Approved |
|-----|----------|-----------|------------|----------|
| A   | 14.07.31 | New Issue | KJ         |          |